FIG.1

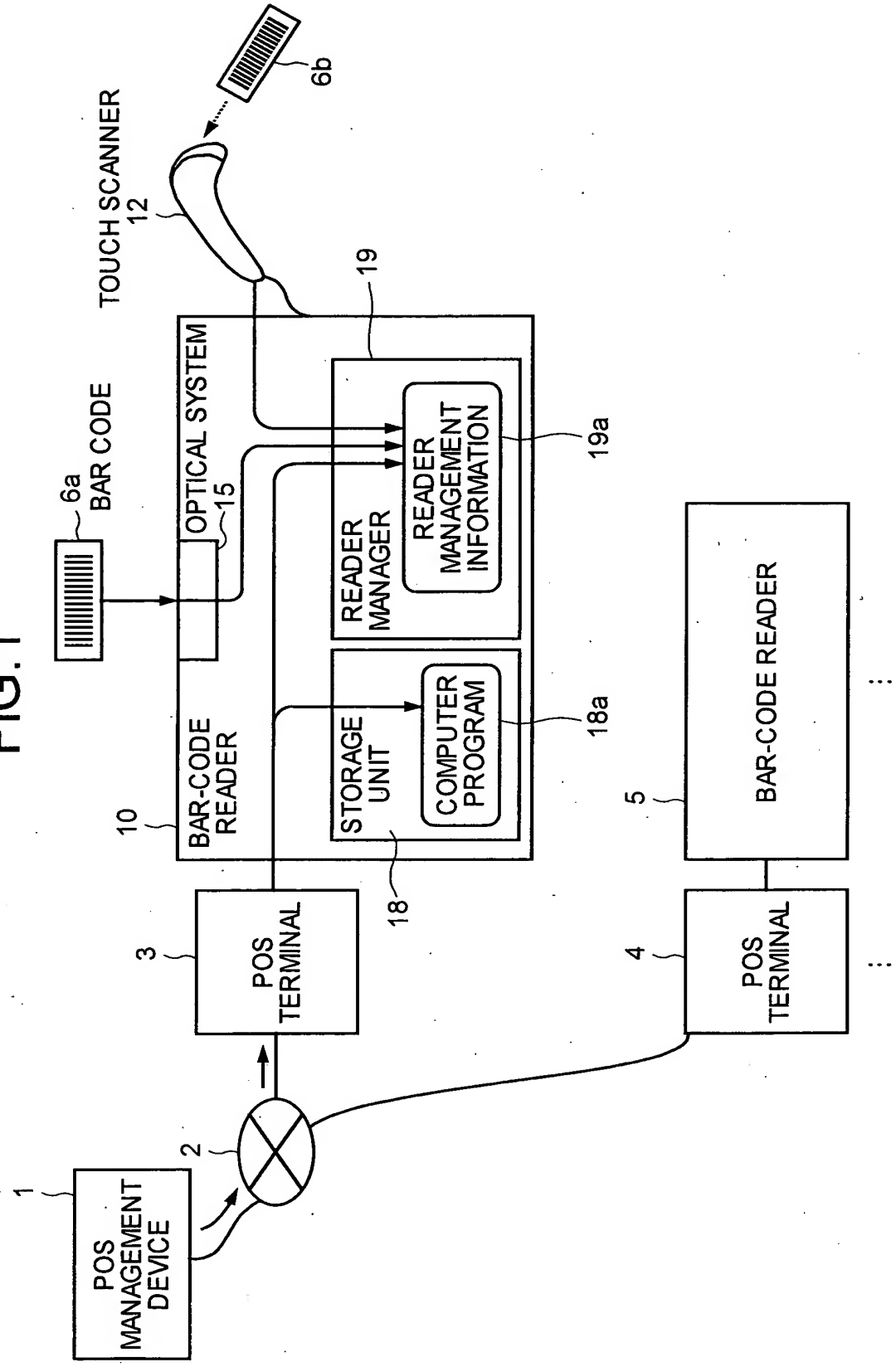

POS MANAGEMENT DEVICE
1
2
POS TERMINAL
3
POS TERMINAL
4
BAR-CODE READER
5
BAR-CODE READER
10
STORAGE UNIT
18
COMPUTER PROGRAM
18a
READER MANAGER
19
READER MANAGEMENT INFORMATION
19a
OPTICAL SYSTEM
15
6a BAR CODE
TOUCH SCANNER
12
6b

FIG.2

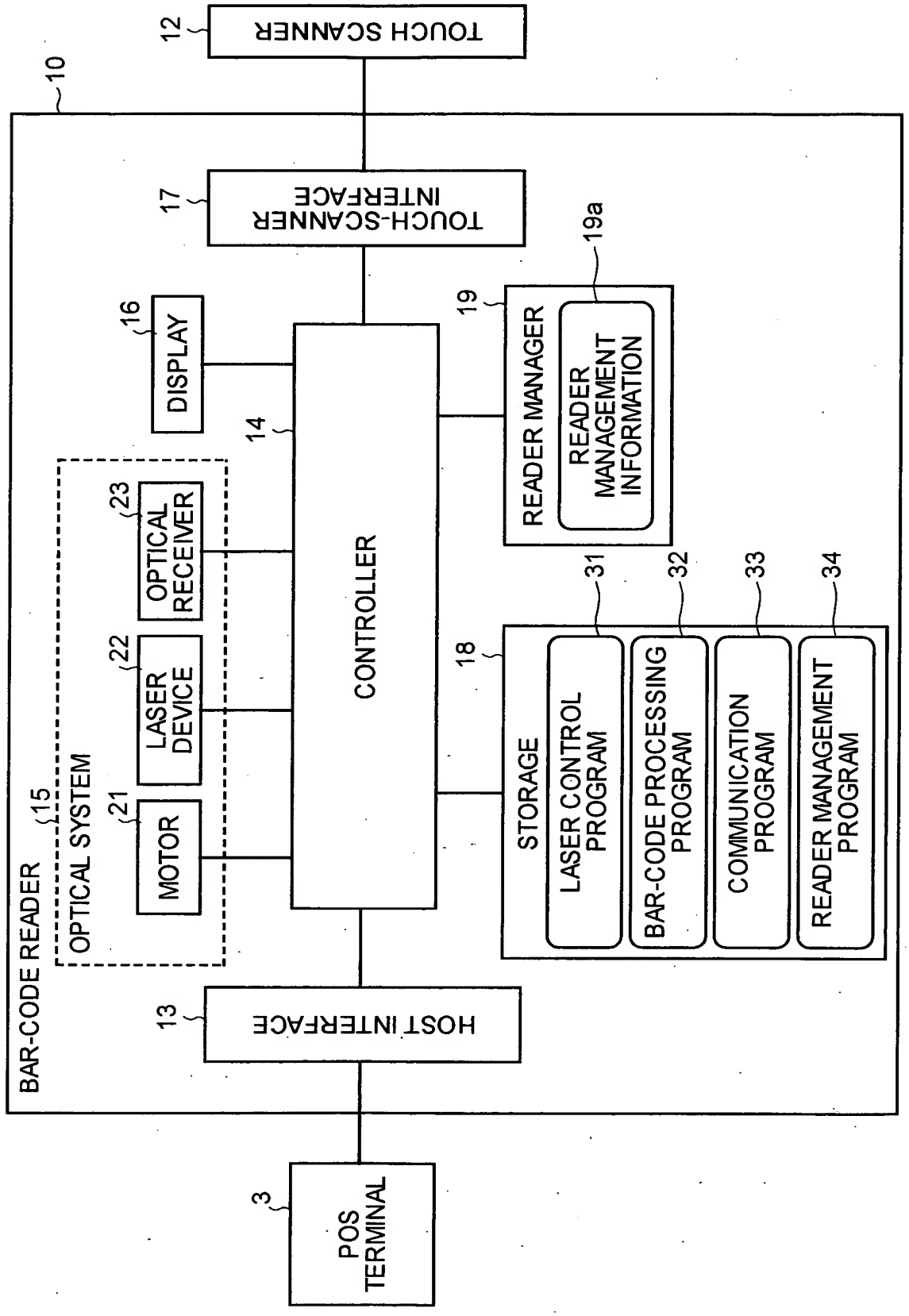

BAR-CODE READER
10
TOUCH SCANNER
12
TOUCH-SCANNER INTERFACE
17
DISPLAY
16
CONTROLLER
14
READER MANAGER
19
19a
READER MANAGEMENT INFORMATION
OPTICAL SYSTEM
15
OPTICAL RECEIVER
23
LASER DEVICE
22
MOTOR
21
STORAGE
18
LASER CONTROL PROGRAM
31
BAR-CODE PROCESSING PROGRAM
32
COMMUNICATION PROGRAM
33
READER MANAGEMENT PROGRAM
34
HOST INTERFACE
13
POS TERMINAL
3

FIG.3

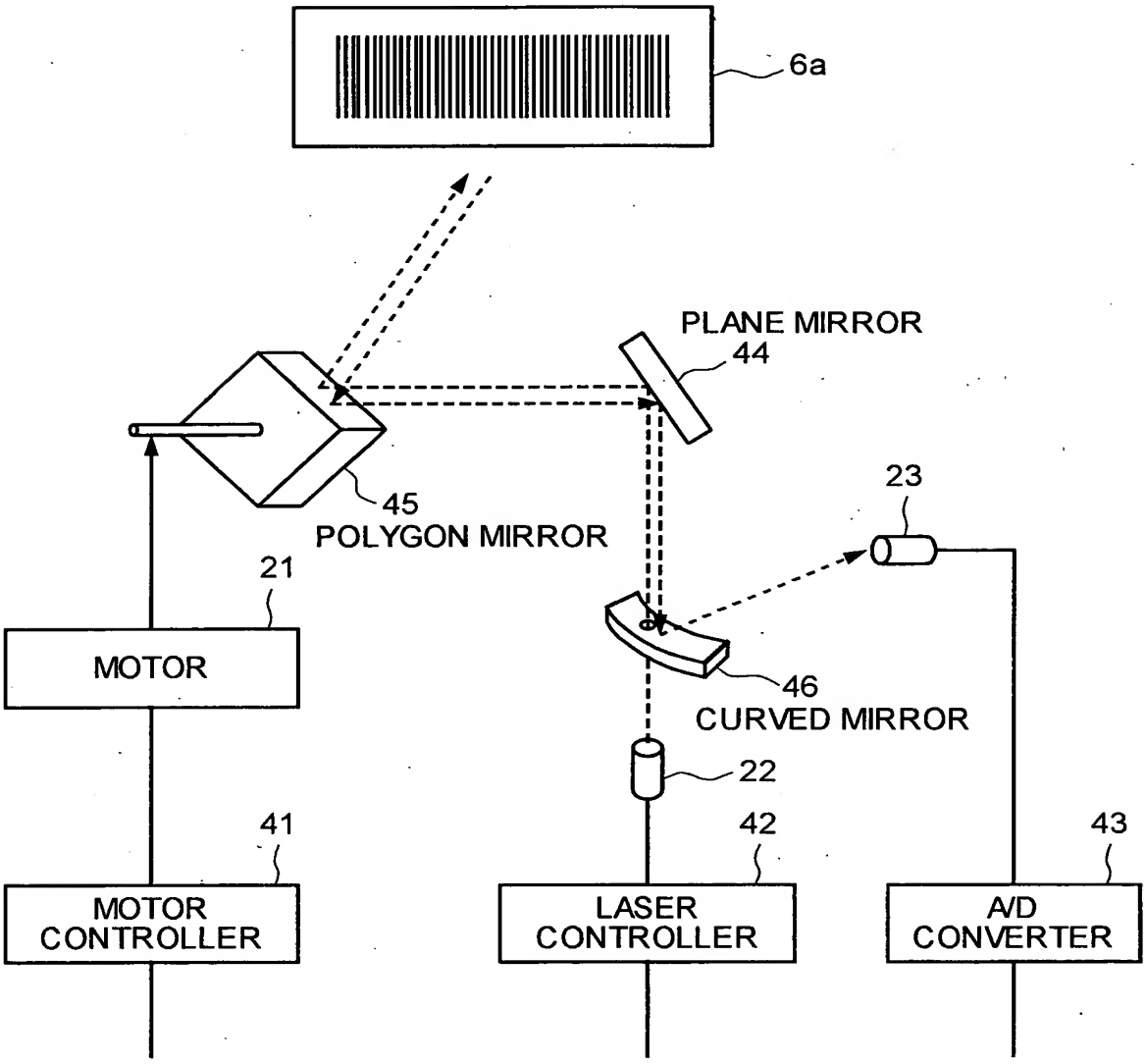

6a
PLANE MIRROR
44
45
POLYGON MIRROR
23
21
MOTOR
46
CURVED MIRROR
22
41
42
43
MOTOR CONTROLLER
LASER CONTROLLER
A/D CONVERTER

FIG.4

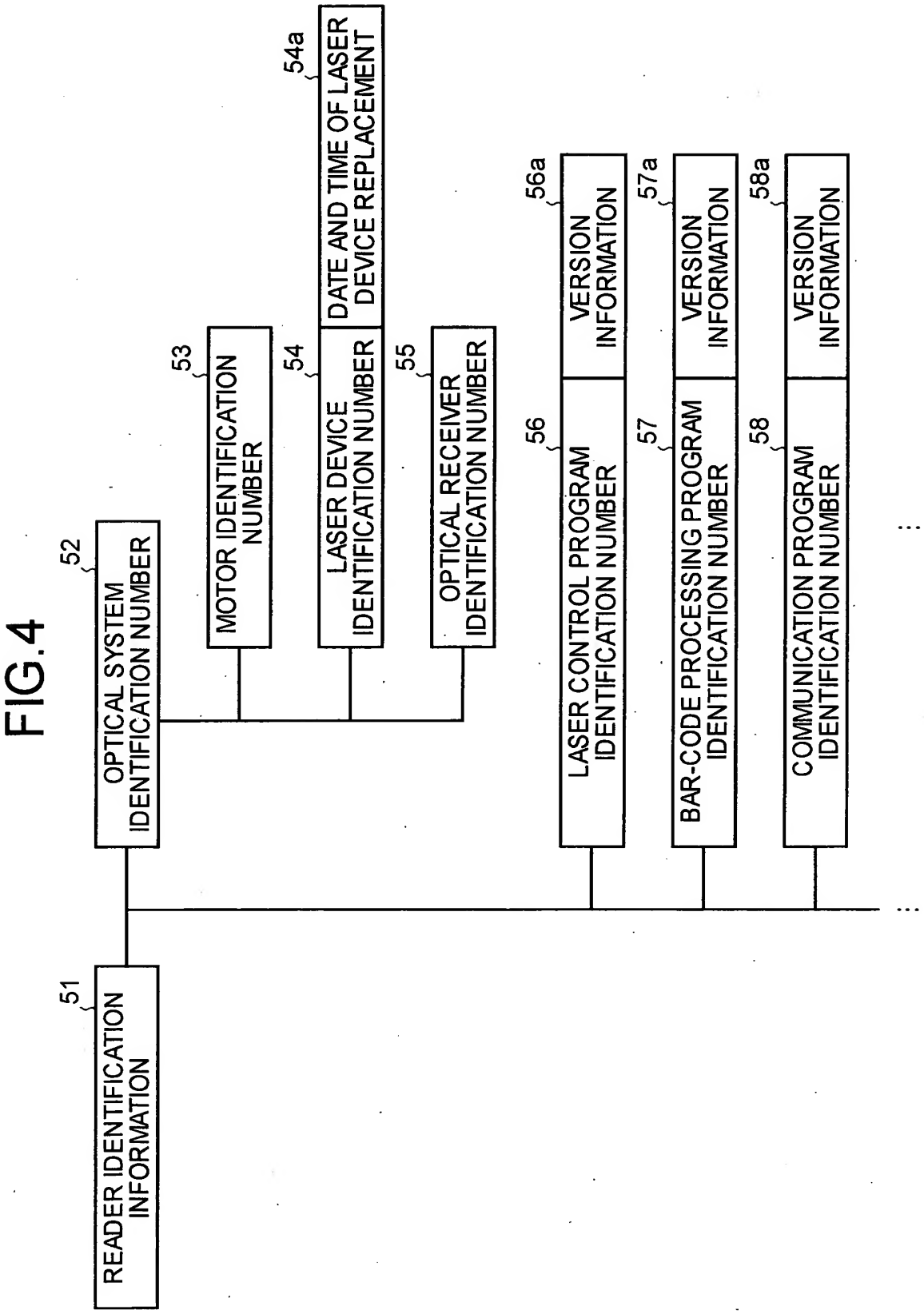

READER IDENTIFICATION INFORMATION
51
OPTICAL SYSTEM IDENTIFICATION NUMBER
52
MOTOR IDENTIFICATION NUMBER
53
LASER DEVICE IDENTIFICATION NUMBER
54
DATE AND TIME OF LASER DEVICE REPLACEMENT
54a
OPTICAL RECEIVER IDENTIFICATION NUMBER
55
LASER CONTROL PROGRAM IDENTIFICATION NUMBER
56
VERSION INFORMATION
56a
BAR-CODE PROCESSING PROGRAM IDENTIFICATION NUMBER
57
VERSION INFORMATION
57a
COMMUNICATION PROGRAM IDENTIFICATION NUMBER
58
VERSION INFORMATION
58a

FIG.5

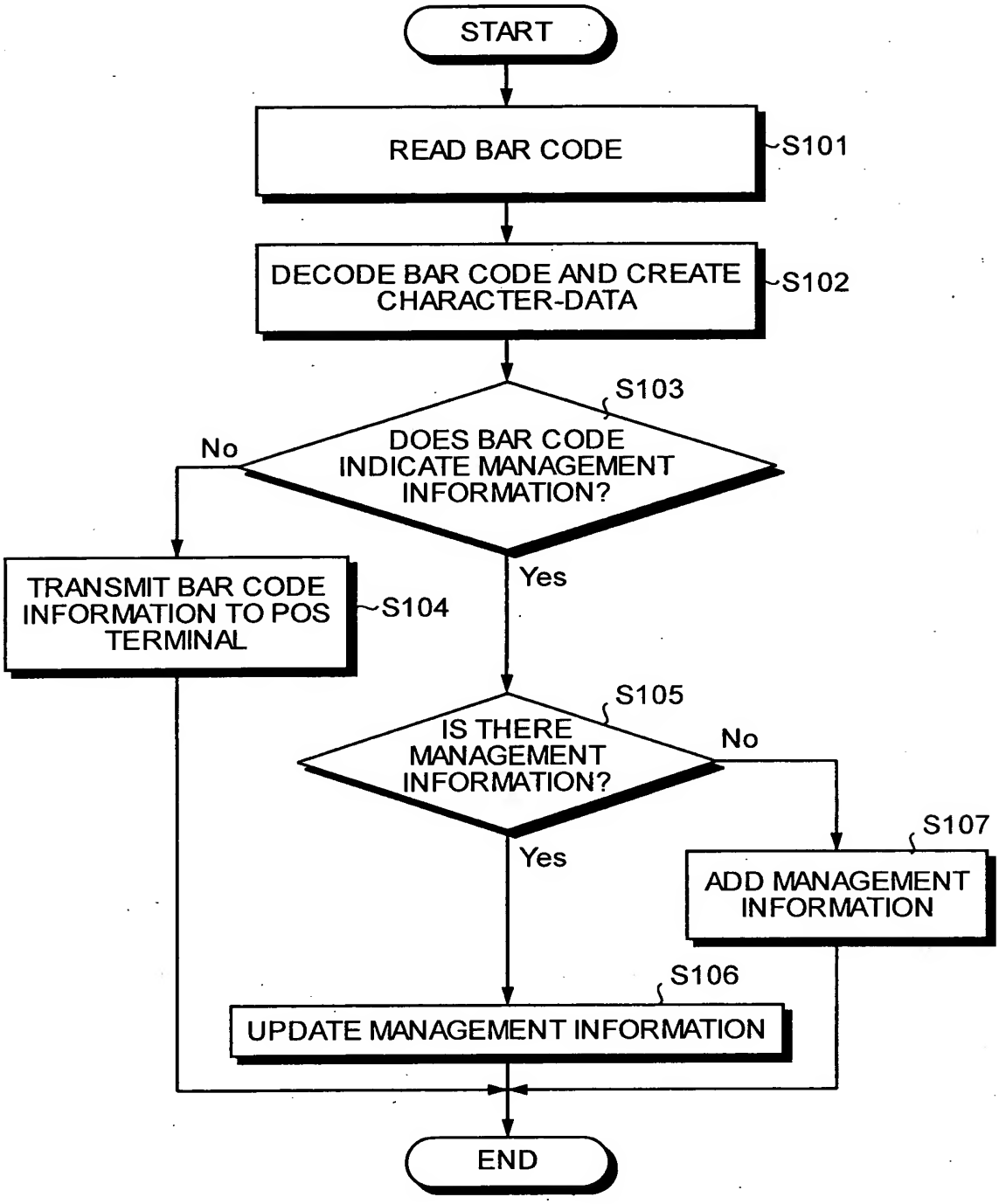
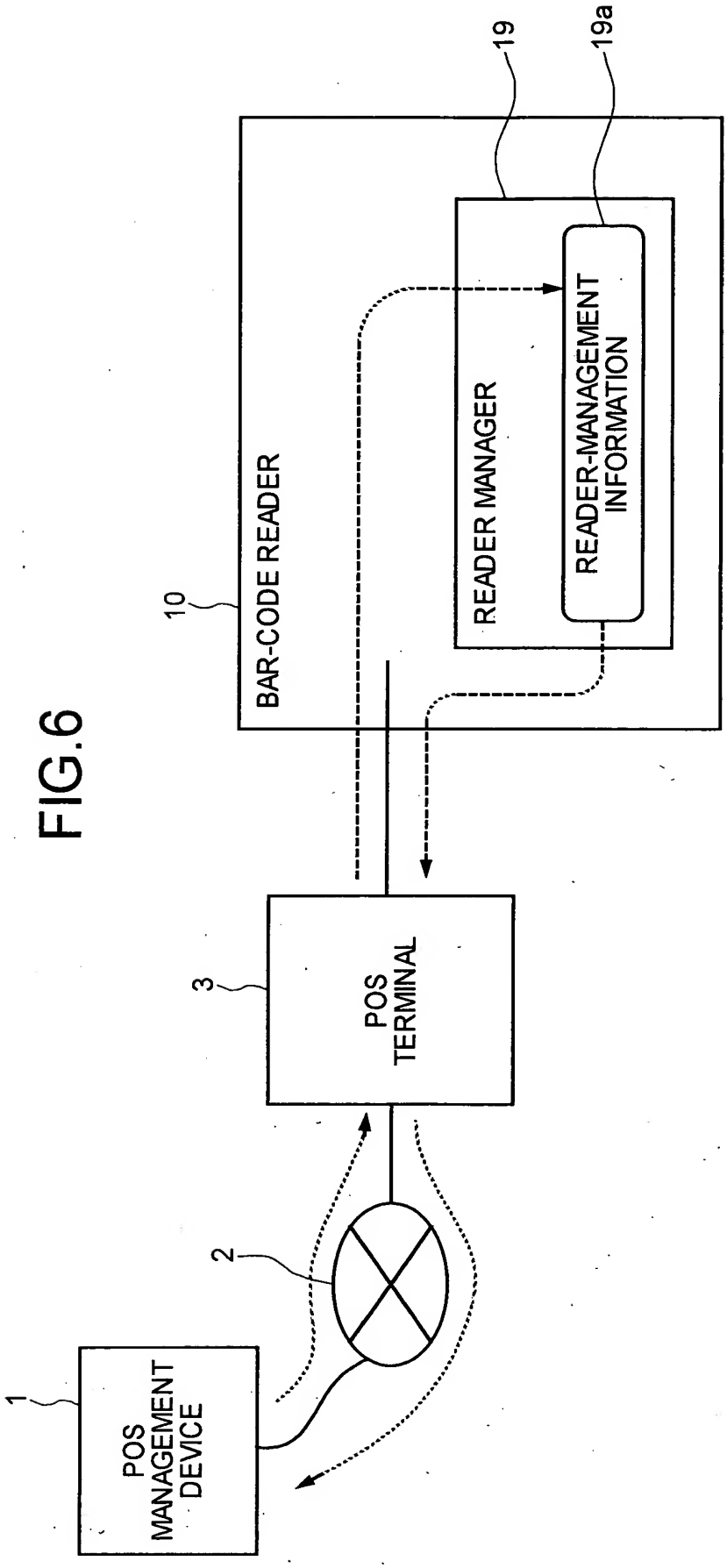

START
READ BAR CODE
S101
DECODE BAR CODE AND CREATE CHARACTER-DATA
S102
S103
DOES BAR CODE INDICATE MANAGEMENT INFORMATION?
No
Yes
TRANSMIT BAR CODE INFORMATION TO POS TERMINAL
S104
S105
IS THERE MANAGEMENT INFORMATION?
No
Yes
S107
ADD MANAGEMENT INFORMATION
S106
UPDATE MANAGEMENT INFORMATION
END

FIG.6


19
19a
BAR-CODE READER
10
READER MANAGER
READER-MANAGEMENT INFORMATION
POS TERMINAL
3
2
POS MANAGEMENT DEVICE
1

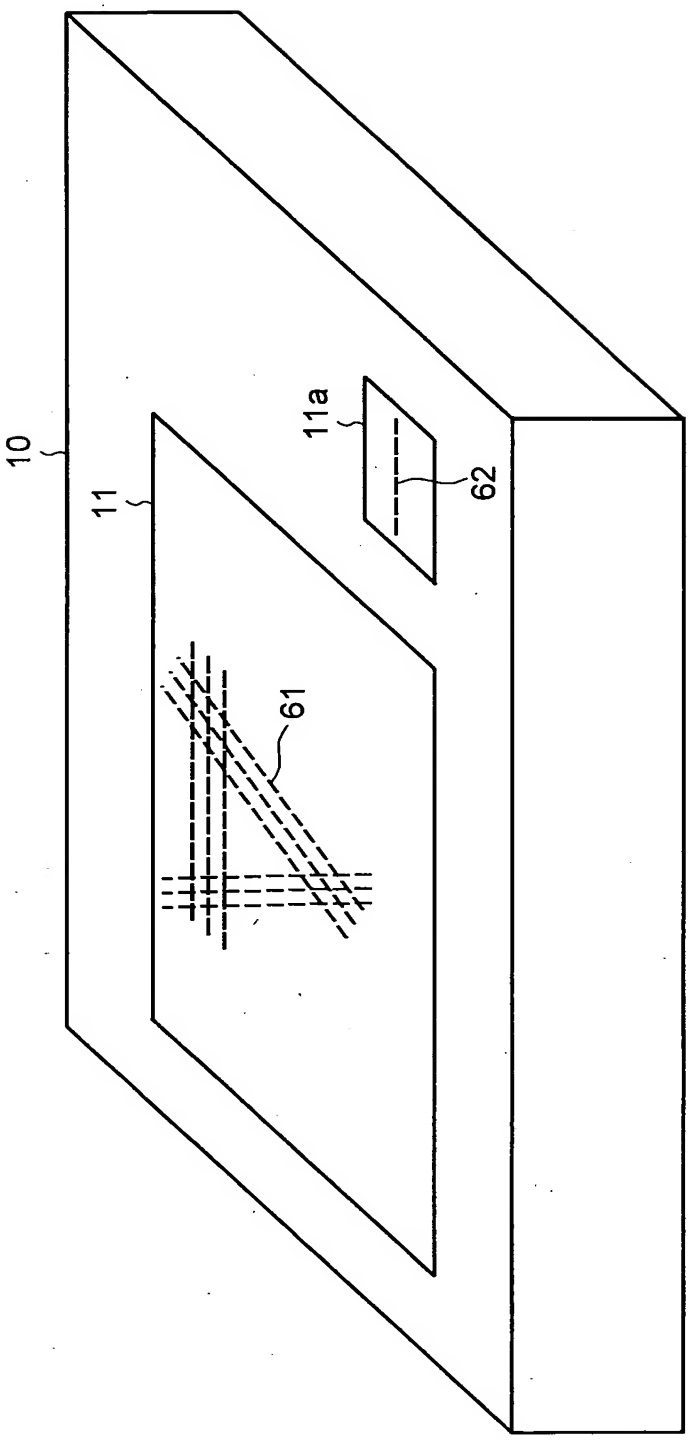



FIG.7